4. Results

The results obtained were statistically analyzed, using T.test and Pearson Correlation test. The level of significance was expressed as $P < 0.05$ for significant, and $P < 0.01$ for highly significant. The results were as follow:

Table (4.1) showed significant increase of GGT ($p.$value = 0.029) and triglycerides ($p.$value = 0.006) between study and control groups and no differences of cholesterol ($p.$value = 0.502) between study and control groups.

Figure (4.1) a scatter plot shows negative correlation between GGT and cholesterol. ($p.$value = 0.125 $r$ = 0.220).

Figure (4.2) a scatter plot shows positive correlation between GGT and Triglycerides. ($p.$value = 0.013 $r$ = 0.348).

Figure (4.3) a scatter plot shows negative correlation between GGT and BMI. ($p.$value = 0.332 $r$ = 0.140).

Figure (4.4) a scatter plot shows negative correlation between GGT and FBS. ($p.$value = 0.187 $r$ = 0.190).
Table 4.1: Comparison of means and P.value of serum GGT, Cholesterol and Triglycerides concentration between study and control groups.

<table>
<thead>
<tr>
<th>parameters</th>
<th>Case ( n=50 ) Mean ± SD</th>
<th>Control ( n=45 ) Mean ± SD</th>
<th>P.value</th>
</tr>
</thead>
<tbody>
<tr>
<td>GGT ( IU/L)</td>
<td>24.28 ± 11.1</td>
<td>19.56 ± 9.4</td>
<td>0.029</td>
</tr>
<tr>
<td>Cholesterol ( mg/dl )</td>
<td>192.86 ± 45.3</td>
<td>186.22 ± 50.7</td>
<td>0.502</td>
</tr>
<tr>
<td>Triglycerides ( mg/dl )</td>
<td>184.78 ± 114.5</td>
<td>130.62 ± 68.3</td>
<td>0.006</td>
</tr>
</tbody>
</table>

Independent sample t- test was used for comparison, P.value considered significant at level ≤ 0.05
Y axis = gamma glutamyl transferase (IU/L)
X axis = cholesterol (mg/dl)

**Figure (4.1):** Correlation between serum GGT and cholesterol.

( p.value=0.125  r=0.220 ).
Y axis = gamma glutamyl transferase ( IU/L )
X axis = triglycerides ( mg/dl )

**Figure (4.2)**: correlation between GGT and Triglycerides.

( p.value=0.013  r=0.348).
Y axis = gamma glutamyl transferase ( IU/L )
X axis = body mass index ( kg/m^2 )

**Figure (4.3):** correlation between GGT and BMI .

( p.value=0.332  r=0.140).
Y axis = gamma glutamyl transferase ( IU/L )
X axis = fasting blood sugar (mg/dl )

**Figure (4.4)**: correlation between GGT and FBS .

( p.value=0.187  r= 0.190).